

IN THÈ UNITED STATES PATENT AND TRADEMARK

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In re: Application of Philip M. Snider et al.

Serial No.: 09/586,648 Filed: June 1, 2000

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Docket No.: 200007 USA

For: Method and System for Performing Operations and for Improving Production in

Wells

January 20, 2004

Art Unit 2635 -

Examiner: Albert Wong-

Commissioner for Patents Washington, D.C. 20231

Sir:

### REQUEST FOR RECONSIDERATION

In the matter of the above-identified application and in response to the Office Action dated December 18, 2003, Applicant respectfully requests reconsideration of the Request for Interference under 37 C.F.R. § 1.607 (a) dated September 12, 2003 for the reasons hereinafter advanced.

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO THE COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 ON THE DATE

January 20, 2004

Date of Signature

Jack E. Ebel

In the Office Action, the Examiner stated that the "Applicant has failed to specifically apply each limitation or element of each copied claim(s) to the disclosure of the application." More specifically, the Examiner "noted that the language recited in the cited columns and pages of Patent 6,333,699 and the instant application do not correspond with many of the limitations recited in the claims. Therefore, it is unclear what portion of the cited passages are relied upon to support enablement of the limitations. It is suggested that applicant point out the specific language to show support for the claim language. Support should be provided for ALL claims pending. If an assertion is made that specific claim limitations are inherent within the disclosure as filed, applicant should provide detailed, unambiguous support for such inherency."

As also noted by the Examiner in the Office Action, Applicants previously provided detailed Claim Charts A and B (attached to a Preliminary Amendment dated September 12, 2003) to set forth support in both U.S. Patent No. 6,333,699 and in the captioned application (which is a continuation-in-part thereof), respectively, for each of the claims present in the captioned application, i.e. claims 83-86 and 105-137. In each attached claim chart, the claims were artificially divided out into segments, merely for the convenience of the Examiner. As such, the claim segments do not necessarily constitute distinct claim elements. Further, the citations next to each claim segment in each claim chart of column and line or page and line where support is found in the captioned application or U.S. Patent No. 6,333,699 is not to be construed that support is not found elsewhere in these documents but only that support exists at least at these citations.

Attached hereto are Claim Charts A and B which are identical to Claim Charts A and B that were attached to the Preliminary Amendment dated September 12, 2003, except that each one has been highlighted to signify a sole passage in U.S. Patent No. 6,333,699 and in the captioned application, respectively, that provides support for each segment of claims 83-86 and 105-137. Such highlighted support is provided in response to the Office Action and to further assist the Examiner in locating support for each claim segment in each of claims 83-86 and 105-137 and is not to be construed that support is not found elsewhere in these documents. Further, support for the

phrase "that stores an identification code" in step (a) of Claim 83 in attached Claim Chart A has been revised from column 19, lines 1-16 to column 10, lines 1-16 to correct an obvious typographical error as column 19 does not exist in U.S. Patent No. 6,333,699. Further, recitation of page 16, lines 11-17 for support for the phrase "the determined identification code is used to determine the depth of the second downhole structure in the borehole; and" in step (d) of claim 83 in the attached Claim Chart B has been revised to page 16, lines 6-17 as deemed more complete and consistent with the other page 16 support recited for step (d) of claim 83.

The Examiner's comments re the "specific language that shows support" for the pending claims leaves the impression that identical language would be required for adequate descriptive support. This is, however, not the correct standard for finding that there is interfering subject matter between two parties claiming the same invention. As stated by the CCPA in In re Wertheim, 541 F.2d 257, 191 U.S.P.Q. 90 (CCPA 1976), "[I]f lack of literal support alone were enough to support a rejection under § 112, then the statement of *In re Lukach*, [citation omitted] that "the [HN5] invention claimed does not have to be described in ipsis verbis in order to satisfy the description requirement of § 112 ", is empty verbiage." In the context of a potential count in an interference the Federal Circuit stated in Fujikawa v. Watanasin, 93 F.3d 1559, 39 U.S.P.Q.2d 1895 (Fed Cir 1996) "ipsis verbis disclosure is not necessary to satisfy the written description requirement of section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question." As is apparent from the previously submitted charts, the disclosures involved in this analysis clearly would convey to persons skilled in the art that the inventors had possession of the subject matter in question.

In considering support of each claim segment, it is sufficient that "the specification contains a description of the claimed invention, albeit not in *ipsis verbis* (in identical words), then the Examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. In re Alton, 37 USPQ 2d 1579, 1583 (CAFC 1996). While certain claim terms as utilized in the instant claims, e.g. "structure" in claim 83, are not found in identical words to describe like components in either U.S. Patent No. 6,333,699 and in

the captioned application, a skilled artisan would readily understand that "well casing or pipe 10 formed of a plurality of sections 12", as described at column 8, lines 7-16 of U.S. Patent No. 6,333,699 and "well casing 56 comprises a plurality of tubular elements 62, such as lengths of metal pipe or tubing, connected to one another by collars" as described at page 11, lines 21-23 of the captioned application constitutes a "structure" as set forth in claim 83. As defined in Webster's New Collegiate Dictionary, "structure" is "something arranged in a definite pattern or organization". Clearly a skilled artisan would readily understand that well casing is a structure.

The Examiner cites two examples of specific limitations recited in the claims whose support is allegedly not clear from the passages cited in the Patent or the application. Step (d) of claim 83 calls in part for "comparing the identification code determined by the RF receiver unit to the target identification code". The Examiner comments that "[t]he cited passages and Figure 2 do not use the same language as recited in the claims. Thus, it is unclear what specific language is relied on to support the comparing step and what provides support for the identification code. Further, what aspect of Figure 2 is intended to support the claim language?"

In support of the recitation of "comparing the identification code determined by the RF receiver unit to the target identification code" in step (d) of claim 83, column 9, line 46 – column 10, line 25 of U.S. Patent No. 6,333,699 is cited in Claim Chart A. The cited passage states, with emphasis added: "Thus, as the well downhole tool 24 passes each PRID or active device 30, 30a at each joint 14, 14a along the depth of the assembled well casing 10, each device 30, 30a responds with a signal which is relayed to the surface and ultimately to the computer 36. By "counting" the number of PRIDs or active devices 30, 30a which the well tool 24 has passed as it is lowered through the casing 10, and comparing each consecutive PRID 30, 30a with the corresponding data previously logged, the computer 36 can indicate the conditions at the location of the well downhole tool 24 in the well casing 10. As an example, previously logged data may indicate that an oil bearing stratum is located between 12,000 and 12,200 feet below the surface. As the length of each of the casing sections 12 is known, the computer 36 need only divide the depth of the stratum by the length of the casing sections 12 to determine how many

casing sections 12 (and thus how many joints 14, with their associated PRIDs or active devices 30) lie between the surface and the desired stratum. This allows the well casing 10 to be perforated accurately at the desired strata, assuring that good flow of the desired substance is obtained without any mixture of undesired substances (water, etc.).

It will be seen that each of the PRIDs or active devices 30, 30a may be configured to provide a distinct and unique response, if desired, or at least several different responses may be provided for the plurality of PRIDs or active devices 30 used in the present invention. Such devices may be configured to provide different frequency responses, and/or modulation of the responses in some manner (amplitude, frequency, pulse) in order for each device to provide a distinct response.

In this manner, each PRID or active device 30, 30a, etc. may be installed along the casing or pipe string 10 with each providing a different response. The different responses corresponding to each of the PRIDs are entered into the computer 36. Thus, information is available as to the exact location of each independent PRID or active device 30, 30a, etc. This may be important in the event that the system misses a response by one or more of the devices 30 installed along the pipe casing 10. In such a situation, if all of the devices 30, 30a, etc. provided identical response signals, the missing of e.g., two of the PRID or active device response signals would result in an error of about sixty feet in the determination of the depth of the well tool 24. By providing each PRID with a distinct response signal, the computer 36 is able to determine the precise location of any given PRID or active device, even if a response signal was not received from one or more of the devices along the casing string 10."

The statement in U.S. Patent No. 6,333,699 that each of the passive radio identification devices or active devices may be configured to provide <u>a distinct and unique response</u> or <u>a different response</u> is clearly deemed synonymous with "identification code" as recited in claim 83. Further, this information is logged into a computer in the process set forth in U.S. Patent No. 6,333,699 and <u>compared</u> with corresponding data previously logged so as to indicate the conditions at the location of the well downhole tool 24 in the well casing 10. In this manner, a well can be perforated at a precise, predetermined depth as indicated by this passage. In view of

this, it is clear that column 9, line 46 – column 10, line 25 of U.S. Patent No. 6,333,699 provides clear and unambiguous support for the recitation of "comparing the identification code determined by the RF receiver unit to the target identification code" in step (d) of claim 83, column 9, line 46 – column 10, line 25 of U.S. Patent No. 6,333,699.

With respect to the support for "identification code" in the captioned application, page 8, lines 21-26 states (emphasis added) that "the system includes the identification devices installed in casing collars at spaced intervals along the well casing. The identification devices include a programmable element, such as a transceiver chip for receiving and storing identification information, such as casing collar and depth designations." Further at page 13, lines 12-25 of the instant application, it is noted that "[t]he identification device 72 includes an integrated circuit chip, such as a transceiver chip, having memory storage capabilities. The integrated circuit chip can be configured to receive RF signals and to encode and store data based on the signals. During a data encoding operation each identification device 72 can be uniquely identified such that each collar 64 is also uniquely identified." With respect to comparing such identification information that is transmitted from an identification device to a target identification code, the captioned application at page 7, lines 23-30 states that "the reader device can be programmed to transmit the control signal to detonate the perforating tool, upon reception of a response signal from an identification device located at a predetermined depth or location within the well. Stated differently, the reader device can be programmed to control the perforating tool responsive to locating a specific identification device." Further, at page 16, lines 6-17 of the instant application, it is stated that "[t]he reader device 70 is programmed to transmit control signals to the tool control circuitry 120, as a function of response signals received from the identification devices 72. For example, in the perforating process illustrated in FIGS. 3A and 3B, coupling C4 is located proximate to the upper level, or entry point into Zone F. Since it is desired to actuate the perforating tool 68 while it is in Zone F, the reader device 70 can be programmed to transmit actuation control signals through the tool control circuitry 120 to the detonator 74 (FIG. 3C), when it passes coupling C4 and receives response signals from the identification device 72 contained in coupling C." It is submitted that a skilled artisan in possession of the instant specification would readily understand that part of the programming would entail comparing the response signal received from the identification device with that programmed in the reader device as corresponding to coupling C4. The verbiage in the bottom box of Figure 2, to wit, "transmitting the control signal to the process tool upon reception of the signal from the selected identification device to actuate the process tool at a selected depth", is cited in support of the claim language in step d) of claim 83.

Regarding the other example of a specific limitation whose support is allegedly not clear from the passages cited in U.S. Patent No. 6,333,699 or the captioned application, the Examiner commented that "Claim 106 recites a plurality of tubular elements and a plurality of Radio identification device secured to separate tubular elements. The cited passages refer to collars and casings. These appear to correspond to tubular elements and securing of the Radio id devices to separate tubular elements. This relationship should be made clear." As illustrated in Figure 2 and described at column 8, lines 7-16 of U.S. Patent No. 6,333,699, well casing or pipe 10 is formed of a plurality of sections 12 having a joint 14 therebetween. As clearly illustrated in Figure 1 of U.S. Patent No. 6,333,699 which is a broken away perspective view in section of a section of well casing, the casing is tubular. "Tubular" as defined by Webster's New Collegiate Dictionary is "having the form of or consisting of a tube". "Tube" is defined as "a hollow elongated cylinder, especially one to convey fluids". As stated by the Federal Circuit in Texas Digital Systems v. Telegenix, 308 F.3d 1193; 64 U.S.P.Q.2d 1812 (Fed Cir 2002) "Dictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims." Thus, it is appropriate to rely on dictionary definitions to explain the ordinary and customary meaning of a term and how a term would have been interpreted by one of skill in the art. Clearly the well casing as illustrated in Figs. 1 and 2 of U.S. Patent No. 6,333,699 is cylindrical, hollow and is meant to convey fluids. Each of a plurality of radio identification devices are installed at each of the coupling joints 14 (column 8, lines22-26; claim 34) or may be installed at some intermediate point in a pipe string (column 12, lines 34-36; Fig. 5; not included in the attached Claim Charts). With respect to the

captioned patent application, support for inclusion of the term "plurality of tubular elements are positioned in a well" in claim 106 is located at page 11, lines 21-37 which recites in part "The well 52 includes a well bore 54, and a well casing 56 within the well bore 54 surrounded by concrete 56. ... The well casing 56 comprises a plurality of tubular elements 62, such as lengths of metal pipe or tubing, connected to one another by collars 64." Support for the phrase "each of the plurality of radio identification devices are secured to separate tubular elements" in claim 106 is located in the captioned patent application at page 6, lines 35-37, page 8, lines 21-23 and page 13, line 35 - page 14, line 7 wherein it is noted that each identification device is installed at a collar. On page 7, lines 21-23 of the captioned patent application, it is noted that the well casing comprises a plurality of tubular elements connected to one another by collars. It is submitted that attachment to a collar is tantamount to attachment to one of the tubular elements to which it is secured. This can be further appreciated since the collar may be attached to a tubular element by means of welds (page 11, lines 28 & 29). In addition to the clear description in the specification, the claims as originally presented in the captioned patent application provide further support for this relationship. Claim 70 as originally presented in the captioned application provides for (emphasis added) "a plurality of radio identification devices attached to the well casing at spaced intervals ...." Dependent claim 71 further specifies one means of such attachment is to collars of the well casing. Since the casing is comprised of tubular elements connected to one another by collars, it is submitted that the captioned application includes attachment of radio identification devices directly to the tubular element of the well casing under the doctrine of claim differentiation.

Applicants have endeavored by way of this response, and the highlighted support Charts A and B attached hereto, to answer questions raised in the pending Office Action and to provide assistance to the Examiner in granting the 37 C.F.R. § 1.607 (a) Request for Interference. Should the Examiner conclude that any issues remain with respect to sufficient written descriptive support, Applicants note that it is clear from the cited case law, including In re Alton, supra that the Examiner must present a prima facie case for why the description does not meet the requirements of 35 U.S.C. § 112.

Applicants' attorney wishes to thank the Examiner for the courtesy extended during a personal interview conducted on August 27, 2003. Also in attendance on behalf of Applicants a this interview was Elizabeth C. Weimar, Esq. During that interview, the common subject matter between the captioned application and U.S. Patent No. 6,333,700 was discussed as well as the unpatentability of numerous claims previously copied from the '700 patent. The general character of the claim amendments set forth in the Preliminary Amendment dated September 12, 2003 to focus the claims on the specific conflicting subject matter between the captioned application and the '700 patent was also discussed.

In view of the foregoing, Applicants respectfully request reconsideration of the previously filed Request for Interference.

Respectfully submitted,

Jack E. Ebel

**Attorney for Applicants** 

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Column 9, lines 28-30 and 46-50; Figs. 1, 2	at a given location in a subterranean wellbore, and the other is moveable in the wellbore;
Column 1, lines 27-30; column 8, lines 7-16; Figs. 1, 2	downhole structure is secured
1	identification code;
	corresponding thereto
	decode the signal to determine the identification code
	transmitter unit,
Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9,	that can receive the signal transmitted by the identification
Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9, lines 23-27 claims 1, 11; Figs. 1, 2	that comprises an RF receiver unit,
Column 8, lines 16-22 and 48-62; column 9, lines 28-36 and 46-50; claims 1, 11; Fig. 1	(b) providing a second downhole structure ; †em レイ
Figs. 11 & 22	identification transmitter unit secured thereto;
Column 5, line 66 - column 6, line 2; column 8, lines 7-16;	having a hollow axial bore therethrough and the RF
Figs. 1 & 2	member
Column 5, line 66 - column 6, line 2; column 8, lines 7-16;	each of the first downhole structures comprises a tubular
Column 9, lines 46-67	are located at different depths in a wellbore,
Figs. 1 & 2	
Column 5, line 66 – column 6, line 2; column 8, lines 7-16;	wherein a plurality of first downhole structures
column 14, line 7	
	code,
Column 1, lines 17-20; column 2, lines 31 & 32; column 7, lines 8-	and transmits an RF signal corresponding to the identification
Column 10, lines 1-16	that stores an identification code
column 2, lines 28-31;column 6, lines 2-6; column 8, lines 22-47; column 13, lines 62-67; claims 1, 11; Fig. 2	Tide comprises an Kr Identification transmitter unit
	(a) providing, a first downhole structure
rigs. I & Z	a wellbore, comprising the steps of the step step of the step step of the step step of the step step step step step step step ste
Column 5, line 66 – column 6, line 2; column 8, lines 7-16;	83. A method for actuating or installing downhole equipment in
Specification Support in U.S. Patent No. 6,333,699	Çlaim(♣)

column 14, line 7	the well; and
13; column 9, line 46 — column 10, line 25; column 13, line 67 —	plurality of radio identification devices and the depth thereof in
107 020	capable of teachiting a plurality of radio identification devices
289	through a wall basing a street of table identification design
	transporting a tool and a reader assembly
Column 1, lines 25-27 and 36-39; column 9, lines 46-67	<b>105.</b> A method of performing a operation in a well comprising:
- 8	gun.
Column 9, lines 64-67; column 13, line 55 - column 14, line 7	and the determined depth is used to determine when to fire the
	structure is a perforating gun,
Column 9, lines 46-67; column 13, line 55 – column 14, line 7; Figs.	86. The method of claim 83, wherein second downhole
	completion tubing.
	transmitter is secured near one end of the respective joint of
Column 8, lines 22-26; column 12, lines 34-36; column 14, lines 8-	85. The method of claim 84, wherein each identification
	to end.
	members are joints of completion tubing that are attached end
Column 14, lines 8-14	<b>84.</b> The method of claim <b>83</b> , wherein the plurality of tubular
	proximity to the other.
	downhole structure or second downhole structure in physical
column 14, line 7	identification code, actuating or installing one of the first
Column 9, line 46 - column 10, line 25; column 13, line 55 -	(e) if the determined identification code matches the target
	depth of the second downhole structure in the borehole; and
Column 9, line 46 - column 10, line 25	the determined identification code is used to determine the
_	receiver unit to the target identification code,
Column 9, line 46 - column 10, line 25 (3), 7, /2 51-53	(d) comparing the identification code determined by the RF
10, 0) (465 ) 0 -0 c	identification transmitter unit;
S II S III S	receiver unit can receive the RF signal transmitted by the RF
	proximity to the first downhole structure so that the RF
Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9,	(c) placing the second downhole structure in close enough
Specification Support in U.S. Patent No. 6,333,699	Claim

Column 2, lines 26-42; column 6, lines 2-6; column 8, lines 16-20; column 13, line 55—column 14, line 7; Figs. 1, 2	113. The method of claim 106 wherein the tool comprises a packer setting tool and the operation is setting of a packer element using the packer setting tool.
Column 9, lines 46-67; column 13, line 55 — column 14, line 7; Figs. 1, 2	her ng t
Column 9, lines 46-67; column 13, line 55—column 14, line 7;	of the plurality of radio identification devices. \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Column 9	110. The method of claim 106 wherein the controlling step is performed statically by stopping the tool proximate to said one.
©வயண்ற 9, lines 46±56; column 13, line 67 – column 14, line 7	<b>109.</b> The method of claim 106 wherein the controlling step is performed dynamically as the tool is transported through the plurality of tubular elements.
Column 9, lines 46-63; column 13, line 67 - column 14, line 7 reader (transceiven) decolos signed tool),	<b>108.</b> The method of claim 106 wherein the controlling step is performed by transmitting a control signal from the reader assembly to the tool.
Column 6, lines 2-6; column 8, lines 22-26; column 9, lines 46-60; column 14, lines 7-14	107. The method of claim 106 wherein the plurality of tubular elements define well casing. ↑₺₺₳ /ㅇ
Column 6, lines 2-6, column 8, lines 22-26, column 9, lines 46-50	and each of the plurality of radio identification devices are secured to separate tubular elements
Column 8, lines 16-20; column 9, lines 46-50	and the tool and the reader assembly are transported through the plurality of tubular elements
Column 8, lines 7-16; Figs. 1, 2	<b>106.</b> The method of claim 105 wherein a plurality of tubular elements are positioned in the well
	identification devices which is located at a depth in the well appropriate for conducting the at least one operation.
controlling at least one operation of the tool responsive to the Column 9, lines 46-67; column 13, line 55 – column 14, line 7	controlling at least one operation of the tool responsive to the

<b>120.</b> The method of claim 119 wherein the tool and the second tool are initially attached to one another and separated between the one of the plurality of radio identification devices and the another of the plurality of the radio identification devices.	controlling the operation of the second tool responsive to the reader assembly locating one of the plurality of radio identification devices which is at a depth in the well appropriate for conducting the operation of the second tool.	119. The method of claim 106 wherein the transporting step includes transporting a second tool, the method further comprising:	<b>118.</b> The method of claim 106 further comprises spacing the tool from the reader assembly by a selected distance.	chemical treating processes, casing patch processes, jet cutting processes and cleaning processes.	s, <u>J</u> g	<b>117.</b> The method of claim 106 wherein the operation comprises a process selected from the group consisting of	ng step is	tubing and tubing strings.			Ž
	S he supposed		Col, 8, 11/20 58-62	implied,		Column 2, lines 26-42; column 6, lines 2-6; column 8, lines 16-20; column 9, lines 46-67; column 13, line 55—column 14, line 7; Figs.	Column 8, lines 16-20 and 48-62; <u>column 9, lines 28-30 and 46-50;</u> Fig. 1 - լաթիլում Դ	1,2 wire /; ne	Column 2, lines 36-39; column 6, lines 12-15; column 8, lines 16- 20; <u>օլիտոր 9, lines 10-18 and 26-34</u> ; column 14, lines 14-18; Figs.	Column 2, lines 26-42; column 6, lines 2-6; column 8, lines 16-20; column 13, line 55—column 14, line 7; Figs. 1, 2	** **Specification Support in U.S. Patent No. 6,333,699

<b>121.</b> The method of claim 106 wherein the reader assembly	Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9,
comprises a radio frequency transmitter configured to provide a	lines 18-23; claims 1, 11; Figs. 1, 2
transmission signal for reception by the radio identification	(a), 8, 11, 48- cc
devices	
and a receiver configured to receive response signals from the	Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9,
radio identification devices.	lines 23-27 claims 1, 11; Figs. 1, 2
122. The method of claim 106 wherein the tool comprises a	
combination tool configured to perform multiple operations in	<b>₹</b> 0
the well.	
<b>123.</b> The method of claim 106 wherein the transporting step is	
performed by free falling the tool and the reader assembly	R O
through the plurality of tubular elements.	
<b>124.</b> The method of claim 105 further comprising establishing	Column 1, lines 20-23; column 2, lines 37-42; column 6, lines 15-26
a record of the well using information obtained during the	and 53-65; column 9, lines 37-45; column 13, line 13 - column 14,
transportation of the reader assembly through the well.	line 7
<b>125.</b> A system for performing an operation in a well	Column 2, lines 26-28; column 8, lines 16-22;
comprising:	claims 1, 11
at least one tool configured for transport through a well;	
a plurality of radio identification devices located at spaced	Column 1, lines 15-17; column 2, lines 29-32; column 6, lines 2-5
intervals	_
at known depths in the well	©olumn 9, lines 46-67 (۵)، ایر ایدار
and configured to transmit response signals for uniquely	Column 2, lines 32 & 33; column 7, lines 8-13; column 9, line 46 –
identifying each radio identification device and the depth	column 10, line 25
thereof in the well; and	stid does not transmit depth linfo implied),
a reader assembly configured for receiving the response	Column 2, lines 33-36; column 6, lines 6-12; column 8, lines 21 &
signals from the radio identification devices	22 and 48-62; column 9, lines 18-27; claims 1, 11; Figs. 1, 2
and for controlling the operation of the at least one tool at an	Column 6, lines 12-15 and 19-26; column 9, lines 18-27; column 9,
appropriate depth in the well responsive to the response	line 46 - column 10, line 25; column 13, line 62 - column 14, line 7
signals.	

further comprises a control circuitry or a computer.  134. The system of claim 132 wherein the reader assembly is programmed to control the operation of the at least one tool in situ within the well.	ठ	The system of claim 126 wherein said reader assembly ses a receiver configured to receive the response	131. The system of claim 130 wherein said at least one tool is	<b>130.</b> The system of claim 126 wherein said at least one tool is configured for transport through the plurality of tubular elements by gravity.	129. The system of claim 128 wherein said transportCmechanism comprises a mechanism selected from the group2consisting of wire lines, pumps, blowers, parachutes, coil tubing1and tubing strings.	128. The system of claim 126 further comprising a transportCmechanism configured to move the at least one tool and the2reader assembly through the well.1	<b>127.</b> The system of claim 126 wherein the reader assembly is attached to the at least one tool	and each of the plurality of radio identification devices are calculated to separate tubular elements within the well.	the at least one tool is configured to be transported through the configured to be configured	126. The system of claim 125 wherein a plurality of tubular elements are positioned in the well,
Column 6, lines 19-26; column 9, lines 30-50; Column 6, lines 12-15 and 19-26; column 9, lines 18-27; column 9, line 46—column 10, line 25; column 13, line 62—column 14, line 7	504.	Column 2, lines 33-36; column 8, lines 21, 22 and 48-62; column 9, lines 23-27 claims 1, 11; Figs. 1, 2		Column 8, lines 16-20 and 48-62; column 9, lines 28-30 and 46-50; Fig. 1 ?	Column 2, lines 36-39; column 6, lines 12-15; column 8, lines 16-20; column 9, lines 10-18 and 26-34; column 14, lines 14-18; Figs. 1, 2	Column 2, lines 36-39; column 6, lines 12-15; column 8, lines 16- 20; column 9, lines 10-18 and 26-34; column 14, lines 14-18; Figs. 1, 2	Column 6, lines 5, 6 and 47-52; <u>column 8, lines 21, 22 and 47-51;</u> Figs. 1, 2	Column 6, lines 2-6, column 8, lines 22-26, column 9, lines 46-50	Column 8, lines 16-20; column 9, lines 46-50	Specification Support in U.S.,Patent No. 6,333,699 Column 8, lines 7-16; Figs. 1, 2

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which includes one of said plurality of radio identification devices.	<b>138.</b> The system of claim 126 wherein adjacent tubular elements of said plurality of tubular elements are secured together by a collar	<b>137.</b> The system of claim 136 further comprising: a detonator in signal communication with the reader assembly and configured to detonate the at least one charge assembly.	<b>136.</b> The system of claim 125 wherein the at least one tool is at least one perforating tool having at least one charge assembly.	135. The system of claim 126 wherein the reader assembly further comprises a controller at the surface.
Columnt8, lines 21426; Fig. 1	©olumn 8¶lines <i>7k</i> 1/2; Fig. 1	?	Column 9, lines 46-67; column 13, line 55—column 14, line 7; Figs. 1, 2	The system of claim 126 wherein the reader assembly   Column 6, lines 19-26 and 53-59; column 6, line 25; Fig. 2

# Attachment to Preliminary Amedment dated 09/12/2003 to U.S. patent application serial no. 09/586,648

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83. A method for actuating or installing downhole equipment in	Page 6, lines 24-28; page 10, line 26; page 11, lines 21-37; page
a wellbore, comprising the steps of:	19, lines 10-16; page 21, line 11; claims 18, 24, 38, 42, 50, 63, 70,
(a) providing, a first downhole structure	71, 73, 74; Figs. 3A & B, 7A & B
that comprises an RF identification transmitter unit	Page 6, line 29-33; page 8, lines 21-23; page 10, lines 26 & 27;
	page 12, line 35 - page 13, line 11; page 13, line 35 - page 14, line
	7; page 19, lines 30-32; page 21, lines 11 & 12; claims 24, 30, 36,
that stores an identification code	38, 42, 50, 64, 70, 71, 73; Fig. 3D
	12-25: page 15 lines 4-13: page 10 line 28: claims 11 36 56:
	Figs. 2 and 4A
and transmits an RF signal corresponding to the identification	Page7/, lines 9511; claims 24, 30, 42, 70, 73; Fig. 4A
code,	
wherein a plurality of first downhole structures	Page 6, lines 24-28; page 11, lines 21-37; page 19, lines 10-14
are located at different depths in a wellbore,	Page 6, line 35 - page 7, line 2; page 13, lines 19-22; page 15,
each of the first downhole structures comprises a tubular	Page 3, lines 27-29; page 11, lines 21-23; page 14, lines 2 & 3;
member	page 19, lines 11-14; claim 63
having a hollow axial bore therethrough and the RF	اب
identification transmitter unit secured thereto;	page 1/2, line 85 page 1/3, line 1/1, page 13, line 35 - page 14; line
	7; page 19, lines 30-32; page 21, lines 11 & 12
(b) providing a second downhole structure	Page 8, lines 30 & 31; page 10, line 21; page 12, lines 6-26; page
	21, lines 6-26; <u>claim</u> s 11, <u>118</u> , 36; Figs. 3A, 3B, 3E, 4A, 5A, 6A-D,
that comprises an RF receiver unit	Page 8 lines 30 36: page 10 lines 22 8 23: page 14 line 8 page
	15, line 3; page 21, lines 10 & 11; claims 4, 6, 24, 30
that can receive the signal transmitted by the identification	!
transmitter unit,	45, 46, 56, 59, 65, 70, 73
decode the signal to determine the identification code	Page 7, lines 23-30; page 16, lines 6-17
corresponding thereto	"COPP F ret

see p. 13

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86. The method of claim 83, wherein second downhole structure is a perforating gun,	nt of	<b>84.</b> The method of claim <b>83</b> , wherein the plurality of tubular members are joints of completion tubing that are attached end to end.	downhole structure or second downhole structure in physical proximity to the other.	(e) if the determined identification code matches the target identification code, actuating or installing one of the first	the determined identification code is used to determine the depth of the second downhole structure in the borehole; and	<ul> <li>(d) comparing the identification code determined by the RF receiver unit to the target identification code,</li> </ul>	receiver unit can receive the RF signal transmitted by the RF identification transmitter unit;	(c) placing the second downhole structure in close enough proximity to the first downhole structure so that the RF	moveable in the wellbore;	wherein one of the first downhole structure and the second downhole structure is secured	留記面 and compare the identification code to a preset target identification code; パんカ フェ (たい μ)
Page 7, lines 20 & 21; page 12, lines 7 & 16-34; page 18, line 2 - page 19, line 3; page 21, line 3; claims 9, 10, 12, 24, 60 & 70; Figs. 3 A & 3B, 6A-D & 8A-C	Page 11, lines 21-25; 32-35; Page 12, lines 35-38; Fig. 3D	Page 11, lines 21-25; 32-35	26, 36, 42, 45, 47, 56, 60, 61, 70, 72, 73; Fig. 2	Page 7, lines 16-21; page 11, lines 1-3; page 16, lines 1-17; page 17, lines 8-15; page 21, lines 21-23; and 33-36; claims 6, 11, 24,	Page 5, lines 34-38; page 6, lines 8-10; page 7, lines 23-27 & 34-37; page 11, lines 1-3; page 16, lines 6-17; page 20, lines 26-31	Page 7, lines 23-30; page 16, lines 6-17; page 20, lines 6-8; Fig. 2	claims 6, 18, 22, 36, 45, 50, 54	Page 6, lines 3-5; page 7, lines 21-23; page 10, lines 35 & 36; page 16, lines 6-11; page 20, lines 8-10; page 21, lines 23-28;	Page 10, lines 24 & 25 and 33 & 34; page 12, lines 11-13; page 18, line 23 - page 19, line 3; page 19; lines 30-32; page 20, lines 13 & 14; claims 1, 2, 6, 11, 15, 16, 18, 23, 24, 28-30, 33, 34, 36, 42, 45, 50, 55, 58, 66-68, 70, 73; Figs. 3A, 3B, 7A, 7B, 8A-C	Page 11, lines 11 & 12; page 19, lines 10 & 11; Figs. 3A, 3B, 7A, 7B, 8A-C	Specification Support in 09/586,648 Application   Page 7, lines 23-30; page 16, lines 6-17

<b>109.</b> The method of claim 106 wherein the controlling step is performed dynamically as the tool is transported through the plurality of tubular elements.	performed by transmitting a control signal from the reader assembly to the tool.		and each of the plurality of radio identification devices are secured to separate tubular elements.	and the tool and the reader assembly are transported through the plurality of tubular elements	<b>106.</b> The method of claim 105 wherein a plurality of tubular elements are positioned in the well	reader assembly locating one of the plurality of radio identification devices which is located at a depth in the well appropriate for conducting the at least one operation.		through a well having a plurality of radio identification devices	<b>105.</b> A method of performing a operation in a well comprising: transporting a tool and a reader assembly	Claim and the determined depth is used to determine when to fire the gun.
Page 8, lines 11-13; page 16, line 18 – page 17, line 5; page 20, lines 19-24; page 36, lines 16-18; claims 21, 27, 53	page 11, lines 1-13, page 15, lines 24-25; page 16, lines 1-3; page 15, lines 22-25; page 16, lines 1-3; page 20, lines 6-18; page 21, lines 21-23 and 33-36; claims 11, 63; Fig. 2	Page 11, lines 11, 12, and 21-37; claim 63	Page 6, lines 35-37; page 8, lines 21-23; page 13, line 35 – Page 14, line 7	Page 8, line 30 – page 9, line 10; page 10, lines 21, 33 & 34; page 36, lines 9-11; Fig. 2	Page 6, lines 24-28; page 11, lines 21-37; claim 63	Page 36, lines 11-13	Page 7, lines 9-11; page 8, lines 23-26; page 13, lines 12-18; page15, lines 4-14; page17, line 36 – page 18, line 2		Page 5, lines 34-38; page 6, lines 13-15  Page 8, line 30 – page 9, line 10; page 10, lines 21, 33 & 34; page 36, lines 9-11; Fig. 2	Specification Support in 09/586,648 Application in 19/586,648 Applicat

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Plants of 21. Fire 50 5B	tool from the reader assembly by a selected distance
Page 16. line 35 - page 17. line 5: page 20. lines 14-18:	<b>118.</b> The method of claim 106 further comprises spacing the
	cutting processes and cleaning processes.
	chemical treating processes, casing patch processes, jet
	setting processes, logging processes, inspection processes,
	perforating processes, packer setting processes, bridge plug
claims 5, 17, 41	comprises a process selected from the group consisting of
Page 6, lines 15-20; page 7, lines 31-34; page 36, lines 13-16;	117. The method of claim 106 wherein the operation
	performed by gravity.
Page 18, line 33 – page 19, line 3; page 21, lines 13-16;	116. The method of claim 106 wherein the transporting step is
	tubing and tubing strings.
	group consisting of wire lines, pumps, blowers, parachutes, coil
	performed using a transport mechanism selected from the
Page 7, lines 11-15, page 18, line 14 – page 19, line 33; claim 68	115. The method of claim 106 wherein the transporting step is
	plug using a bridge plug setting tool.
	bridge plug setting tool and the operation is setting of a bridge
Page 7, lines 31-34; claim 35	114. The method of claim 106 wherein the tool comprises a
Figs. 7A, 7B, 8A, 8C	element using the packer setting tool.
Page 20, line 33; claims 10, 13, 32, 49, 61, 73, 75;	packer setting tool and the operation is setting of a packer
Page 7, lines 31-34; page 8, lines 16-20; page 19, line 4 –	113. The method of claim 106 wherein the tool comprises a
	orginal morn the reader assembly.
70, 72	sized from the reader permetting tool responsive to a control
Page 7, lines 23-30; page 16, lines 6-11 and 28-34; claims 26, 60,	112. The method of claim 110 wherein the controlling step
Figs. 2, 3B, 3C, 5A, 5B	
page 12, lines 5-8; page 15, line 35 - page 17, line 5;	tool allo the operation is a periorating operation.
Page 6, lines 23 & 24; page 7, lines 20 & 21; page 11, lines 7-10;	111. The method of claim 106 wherein the tool is a perforating
	of the plurality of radio identification devices.
8	performed statically by stopping the tool proximate to said one
Page 8, lines 13 & 14; page 17, lines 6-15; page 20, lines 24-26;	<b>110</b> . The method of claim 106 wherein the controlling step is
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at least one tool configured for transport through a well;	<b>125.</b> A system for performing an operation in a well comprising:	<b>124.</b> The method of claim 105 further comprising establishing a record of the well using information obtained during the transportation of the reader assembly through the well.	<b>123.</b> The method of claim 106 wherein the transporting step is performed by free falling the tool and the reader assembly through the plurality of tubular elements.	<b>122.</b> The method of claim 106 wherein the tool comprises a combination tool configured to perform multiple operations in the well.	and a receiver configured to receive response signals from the radio identification devices.	comprises a radio frequency transmitter configured to provide a transmission signal for reception by the radio identification devices	tool are initially attached to one another and separated between the one of the plurality of radio identification devices and the another of the plurality of the radio identification devices.	reader assembly locating one of the plurality of radio identification devices which is at a depth in the well appropriate for conducting the operation of the second tool.  120. The method of claim 119 wherein the tool and the second	119. The method of claim 106 wherein the transporting step includes transporting a second tool, the method further comprising:
	Page 8, lines 30 & 31; page 10, lines 21, 33, 8,84; page 36, lines 9-11; Fig. 2	Page 8, line 31 – page 9, line 4; page 15, lines 4-9; <mark>圆匐im 5</mark> 2	Page 7, lines 11-15; page 18, line 33 – page 19, line 3; claims 29, 34	Page 8, lines 15-20; page 20, lines 5-10; Figs. 8A-C	Page 7, lines 6-8; page 14, lines 11 & 12 and 15-17; page 15, lines 14-17; claims 4, 7, 39, 46, 59, 65; Fig. 3E	Page 7, lines 6-8; page 14, lines 9-15 and 18-28; page 15, lines 14-16; claims 4, 7, 39, 46, 59, 65; Fig. 3E	Radional Strategy Control of the Con	Page 8, lines 14 & 15; page 21, line 17 – page 22, line 22; claims 36, 42  Page 21. lines 28-30; claim 37; Figs. 8A, 8B, 8C	

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<b>131.</b> The system of claim 130 wherein said at least one tool is configured to free fall through the tubular elements.	<b>130.</b> The system of claim 126 wherein said at least one tool is configured for transport through the plurality of tubular elements by gravity.	consisting of wire lines, pumps, blowers, parachutes, coil tubing and tubing strings.	<b>129.</b> The system of claim 128 wherein said transport mechanism comprises a mechanism selected from the group	reader assembly through the well.	<b>128.</b> The system of claim 126 further comprising a transport mechanism configured to move the at least one tool and the	<b>127.</b> The system of claim 126 wherein the reader assembly is attached to the at least one tool	secured to separate tubular elements within the well.	and each of the plurality of radio identification devices are	the at least one tool is configured to be transported through the plurality of tubular elements,	<b>126.</b> The system of claim 125 wherein a plurality of tubular elements are positioned in the well,	signals.	and for controlling the operation of the at least one tool at an	signals from the radio identification devices	thereof in the well; and	and configured to transmit response signals for uniquely identifying each radio identification device and the denth	at known depths in the well	a plurality of radio identification devices located at spaced intervals
Page 7, lines 11-15; page 18, line 33 – page 19, line 3; claims 29, 34	Page 18, line 33 – page 19, line 3; page 21, lines 13-16; claims 16, 23, 55, 66		Page 7, lines 11-15, page 18, line 14 – page 19, line 33; <u>claim 68</u>	33, 55, 58, 67, 70; Figs. 2, 6 A-D	Page 7, lines 3-5 and 11-15; page 10, lines 24 & 25; page 12, lines	Claims 44, 57, 63, 70, 73; Figs. 3A, 3B, 6 A-D, 8 A-C	Page 14, line 7	Page 6. lines 35-37: page 8. lines 21-23: page 13. line 35	Page 8, line 30 = page 9, line 10; page 10, lines 21, 33 & 34; page 36, lines 9-11; Fig. 2	Page 6, lines 24-28; page 11, lines 21-37; claim 63		Page 7, lines 16-21; page 10, lines 30-32; page 11, lines 1-3	Page /, lines 6-8; page 14, lines 11 & 12 and 15-17; page 15, lines 14-17; claims 4, 7, 39, 46, 59, 65; Fig. 3E	page 10, miles of 14, page 17, mile of 12 page 10, mile c	Page 7, lines 9-11; page 8, lines 23-26; page 13, lines 12-18;	Page 6, line 35 – page 7, line 2; page 8, lines 23-26	Specification Support in 09/586,648 Application Page 6, lines 29-32; page 8, lines 21-23; page 10, lines 26 & 27;

35-38; page 19, lines 30-32; page 36, lines 21-23; Fig. 3D	devices.
Page 6, lines 31-33; page 8, lines 21-23; page 12, lines 8-11 and	which includes one of said plurality of radio identification
	together by a collar
	elements of said plurality of tubular elements are secured
Page 11, lines 21-29; Figs. 3A, 3B, 3D	<b>138.</b> The system of claim 126 wherein adjacent tubular
	and configured to detonate the at least one charge assembly.
16, line 11; claim 72	a detonator in signal communication with the reader assembly
Page 7, lines 23-30; page 12, lines 16-26; page 15, line 35 – page	<b>137.</b> The system of claim 136 further comprising:
	assembly.
and 16-34; Figs. 3 A-C; 6 A-D; 8 A-C	at least one perforating tool having at least one charge
Page 6, lines 23 & 24; page 7, lines 20 & 21; page 12, lines 6, 7	<b>136.</b> The system of claim 125 wherein the at least one tool is
page 18, lines 19-22; page 20, lines 26-33	
26-34; page 15, line 37 – page 16, line 1; page 17, lines 16-19;	further comprises a controller at the surface.
Page 8, lines 7-111; page 8, line 36 – page 9, line 8; page 15, lines	<b>135.</b> The system of claim 126 wherein the reader assembly
lines 11-13; claim 11); Fig. 2	
page 16, line 17; page 17, lines 8-15, page 20, lines 6-14; page 36,	situ within the well.
30-32; page 11, lines 1-3; page 15, lines 19-25; page 15, line 35 –	programmed to control the operation of the at least one tool in
i V	<b>134.</b> The system of claim 132 wherein the reader assembly is
page 18, lines 19-22; page 20, lines 26-33	
26-34; page 15, line 37 – page 16, line 1; page 17, lines 16-19;	further comprises a control circuitry or a computer.
Page 8, lines 7-11; page 8, line 36 – page 9, line 8; page 15, lines	133. The system of claim 126 wherein the reader assembly
page 15, lines 14-16; claims 4, 7, 39, 46, 59, 65;	the plurality of radio identification devices.
Page 7, lines 6-8; page 14, lines 9-15 and 18-28;	and a transmitter configured to transmit transmission signals to
	signals
page 15, lines 14-17; claims 4, 7, 39, 46, 59, 65; Fig. 3E	comprises a receiver configured to receive the response
Ē	<b>132.</b> The system of claim 126 wherein said reader assembly
Specification Support in 09/586,648 Application	Specification Support in 09/586,648 Application